



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,950	04/30/2001	Yi-Pin Eric Wang	8194-348IP	3327
20792	7590	08/23/2004	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC			WARE, CICELY Q	
PO BOX 37428			ART UNIT	PAPER NUMBER
RALEIGH, NC 27627			2634	6
DATE MAILED: 08/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/845,950	WANG ET AL. <i>fb</i>	
	Examiner	Art Unit	
	Cicely Ware	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 April 2001.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-48 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1-48 is/are allowed.

6) Claim(s) _____ is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 30 April 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because

a. Fig. 4, element 329, applicant uses "materic". Examiner assumes "metric".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. Pg. 1, examiner suggests applicant delete space above heading.
 - b. Pg. 7, line 15, applicant makes reference to a "G-RAKE and IW-RAKE".

Examiner suggests applicant spell out the first instances of all acronyms for clarification purposes.

Appropriate correction is required.

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Allowable Subject Matter

4. Claims 1-48 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a method of recovering information encoded in a spread spectrum signal transmitted in a communications medium. Prior art references show similar methods (Wang et al. US Patent 6,125,137) but fail to teach **"estimating noise correlation among the time-offset correlations to produce noise correlation estimates; selecting a subset of the time-offsets from the set of time-offsets based on the noise correlation estimates; correlating the composite signal with a traffic spreading sequence at each of the time-offsets in the selected subset of**

the time-offsets to produce a plurality of traffic correlations", as in claim 1, 25, 28 and 36; and "a correlation timing determiner circuit that selects a set of correlation times based on the times at which multipath versions of a desired signal are received; a correlation circuit, operatively associated with the correlation timing determiner and responsive to a received composite signal, that generates respective time-offset correlations of the composite signal with a sequence at respective correlation times of the selected set of correlation times; a noise correlation estimation circuit that estimates noise correlation; a combining finger selector circuit that selects a subset of the correlation times based on the noise correlation estimates; and a combiner circuit that combines correlations of the composite signal at the selected subset of the correlation times with a traffic spreading sequence to produce an estimate of information contained in the composite signal", as in claim 30 and 43.

Conclusion

6. This application is in condition for allowance except for the following formal matters:

- a. Drawing objections
- b. Specification objections

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 703-305-8326. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
August 18, 2004



STEPHEN CHIN
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2600